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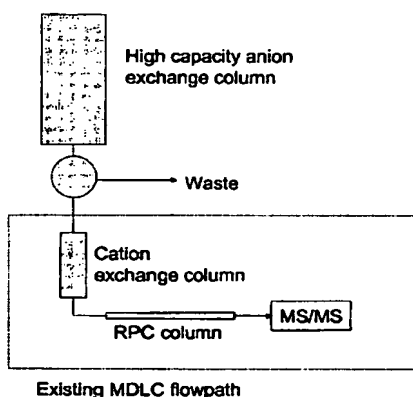
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(54) Title: METHOD AND SYSTEM FOR REDUCING TOTAL SAMPLE COMPLEXITY



(57) Abstract: A method for reducing total sample complexity in native or digested biological sample(s), before analysis thereof by mass spectrometry, comprising the following steps: a) selecting a fraction from the entire native or digested biological sample(s) on the basis of pI-value, said fraction comprising native or digested sample representing a subset of or the entire substance population in the sample, said fraction being obtained by e.g. anion exchange chromatography, isoelectric focussing or chromatofocussing; b) separating native or digested sample substances from each other, wherein said separation is by cation exchange chromatography; and c) analysing said substances by mass spectrometry. The invention also relates to a system for reducing total sample complexity in the above method, comprising a high capacity charge-selective column (anion exchange, isoelectric focussing or chromatofocussing) coupled to a MDLC work flow path comprising a cation exchange column and a RPC column. The system is followed by a MS/MS instrument.

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